

# NASA TECH BRIEF

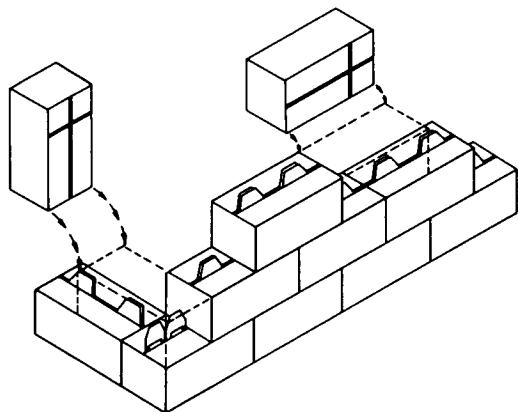
## *Manned Spacecraft Center*



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### Foldable Patterns Form Construction Blocks

Unskilled workers can construct building blocks from flat sheets of material, and fill and stack them in courses using a minimum of tools and equipment. The blocks are particularly suited for remote areas or underdeveloped countries where there are no locally



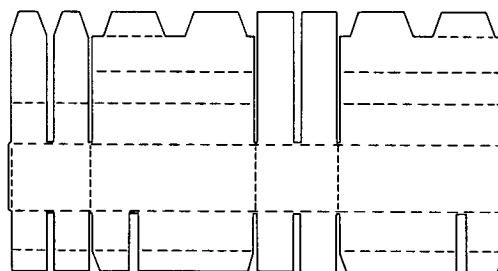
inexpensive building materials and the cost of transporting conventional supplies is prohibitive.

The blocks consist of hinged side panels with interlocking lid and bottom panels. When folded, the panels provide either two symmetrical, longitudinal interlock tabs for making wall runs, or longitudinal and transverse tabs for wall corners. The bottom panels fold to provide a double thickness of longitudinal tabs and to divide the block into two separate compartments. The resulting divider provides a load path for the weight of the upper blocks and a receptacle for the interlocking tabs of the adjacent blocks.

For storage and shipment the patterns may be stacked or folded into containers for transporting medical supplies, foods, books, or other materials prior to construction. To form the desired structure,

the lids of the empty blocks are opened, and the blocks are filled with soil or loose material. The lids are then closed and the blocks stacked in an overlapping configuration.

The interlocking tabs provide and maintain alignment and can be adhesive bonded for additional strength. Various colors of block material can be used for different applications and the block finish pro-



vides a more acceptable appearance for inhabitants of a completed structure. Dismantling unbonded structures allows the blocks to be emptied and re-used in other locations. The patterns can be made of various materials, but waterproofed cardboard is preferred.

#### Note:

Requests for further information may be directed to:

Technology Utilization Officer  
Manned Spacecraft Center, Code JM7  
Houston, Texas 77058  
Reference: TSP71-10523

#### Patent status:

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